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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/630,902	08/02/2000	Jayant D. Patel	7784-000135	7985

7590 03/24/2004

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EXAMINER

HOOK, JAMES F

ART UNIT PAPER NUMBER

3752

DATE MAILED: 03/24/2004

17

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/630,902

Applicant(s)

PATEL, JAYANT D.

Examiner

James F. Hook

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 7, 9-15 and 18-29 is/are pending in the application.
- 4a) Of the above claim(s) 9-15 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 27 is/are allowed.
- 6) ☒ Claim(s) 1-4, 7, 18-26, 28 and 29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Sorg. The patent to Sorg discloses the recited duct assembly for coupling a pair of components 9 and 11 in fluid connection comprising a first portion 4 having an end portion, a second portion 2 in fluid connection with the first portion, the second portion is more flexible than the first portion, the end of the first portion being received into the second portion, the second portion includes a reinforcing helix 7 bonded to the second portion by sleeves 8 which form discrete support collars coupled to the outer perimeter of the second portion, the support collar covers the connection between the first and second portions and would inherently prevent the formation of a stress riser at this intersection to render the intersection less susceptible to tearing in response to repeated flexing of the second portion, the support collar has a cross section which is considered to be generally a flat base with a circular cross section and is considered hollow to receive the second portion therein.

Claims 18, 20, 21, and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Ziebold. The patent to Ziebold discloses the recited apparatus and method of forming a hose assembly for coupling a plurality of components comprising

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forming a rigid duct structure 12,14 and a flexible duct structure 20, and bonding the flexible duct structure to an end of the rigid structure using sleeves 16,18 welded thereto to produce a clampless flexible fluid connection that permits the end of the flexible duct structure opposite the rigid duct structure to be moved relative to the rigid duct structure, the flexible duct structure includes a plurality of bellows and a reinforcing member 22 where the duct structure is formed of metal.

Claims 18-20 and 24-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Pfleger. The patent to Pfleger discloses the recited apparatus and method of forming a hose assembly for coupling a plurality of components comprising forming a rigid duct structure 6 made of plastics and a flexible duct structure 7 made of thermoplastic elastomers, and bonding the flexible duct structure to an end of the rigid structure to produce a clampless flexible fluid connection that permits the end of the flexible duct structure opposite the rigid duct structure to be moved relative to the rigid duct structure, the flexible duct structure includes a plurality of bellows 8, added sleeves 2 and 3 can be provided to help connect the two structures together where elastomers can be used and the sleeves are bonded to the structures, the rigid duct structure can be made of plastics, first and second rigid duct structures are provided and are connected by the flexible duct structure forming fluid connections including the sleeve portion mentioned above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pfleger in view of Timmons. The patent to Pfleger discloses all of the recited structure with the exception of providing the flexible bellows portion with a thermoplastic reinforcing member, and providing the rigid portion with a beaded end. The patent to Timmons discloses the recited method of forming a hose comprising a rigid duct structure 105 which is inherently more rigid than the flexible portion 101 provided with convolutions to allow flexing of that portion, where the flexible portion is provided with a reinforcement 153 which can be made of a thermoplastic material, typically nylon, and where the rigid portion can be provided with a beaded end as seen just to the left of the dashed line near reference numeral 161 and can be formed of a plurality of reinforced layers that overlap with the corrugated portion. It would have been obvious to one skilled in the art to modify the method of forming a hose in Pfleger by providing a thermoplastic reinforcement on the flexible portion to give it some resistance to collapse, and to provide a beaded end portion as suggested by Timmons to allow for a better seal at a connection of the rigid portion to another object.

Claims 28 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pfleger in view of Timmons and Tally. The patent to Pfleger discloses all of the recited structure with the exception of providing a thermoplastic helix bonded to a

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flexible portion, and forming a second tube shaped portion of a thermoset fiber reinforced material having one or more layers. It would have been obvious to one skilled in the art to modify the method of forming a hose in Pfleger by providing a thermoplastic reinforcement on the flexible portion to give it some resistance to collapse, and to provide a plurality of layers at the rigid portion that are reinforced by fibers as suggested by Timmons to insure the rigid portion stays connected to the flexible corrugated portion. The patent to Tally discloses that when forming tubes for use in coolant conduits such as Pfleger, that plastics and thermoset plastics can be used to insure the section keeps its shape in use. It would have been obvious to modify the plastic material used for the rigid portion of Pfleger by substituting a thermoset material to insure that the rigid portion retains its shape when in use as suggested by Tally.

Response to Arguments

Applicant's arguments filed January 5, 2004 have been fully considered but they are not persuasive. It is noted that claim 1 was amended, however, the new portion was not underlined as is required. With respect to Sorg, such may teach an additional step to adhere the sleeve, however, this does not change the fact that the sleeve exists as a separate collar, and therefore meets the claim language which does not require that the sleeve have any properties which would prevent it from being made integral. Since, the examiners position is that the teaching of the separate sleeve meets the claim language, and it exists at the intersection as set forth in the rejection above, such

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language is therefore met by the reference. Ziebold teaches a rigid duct 12, and via sleeve 16 which extends over the ends of each of the rigid conduit and the flexible portion which meets the claim language. The arguments are more detailed than the claim language which does not set forth that the two conduit portions are in direct contact, therefore the sleeve connecting the two meets the broad language of the claims. Pfleger clearly sets forth that section 4 is made of a rigid material, and that such is connected to the flexible portion 7 which has corrugations to make it more flexible and such is made of layer 5 which can be seen to be attached to portion 4, therefore, Pfleger meets the claim language, and the arguments are more detailed than the claim language supports. As set forth above, direct connection is not required, however Pfleger teaches a direct connection. All remaining arguments, are directed to the deficiencies of the base reference, however as set forth above, the base reference meets the claim language, and therefore this argument is not persuasive. There appears to be no objection to the combination of the references, therefore such is not contested by the applicant and appears acceptable.

Allowable Subject Matter

Claim 27 is allowed.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The patents to Shanfelt, Tippet, and Qutub disclosing a state of the art hose having rigid and flexible portions.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

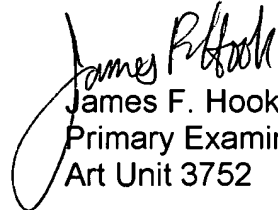
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James F. Hook whose telephone number is (703) 308-2913. The examiner can normally be reached on Monday to Wednesday, work at home Thursdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Mar can be reached on (703) 308-2087. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0861.



James F. Hook
Primary Examiner
Art Unit 3752

JFH